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 TI Waterproofing and freeze-resistant **shotcrete** mortar compositions
 IN Sytnik, Alexandr Alexandrovich; Sytnik, Alexandr Konstantinovich; Krylov, Anatoly Ivanovich
 PA Russia
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 CC 58-3 (Cement, Concrete, and Related Building Materials)
 FAN.CNT 1

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	RU 2152914	C1	20000720	RU 1999-102154	19990209
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CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	WO 2000047534	ICM	C04B028-04
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AB The mortar compns. contain (a) an additive-free Portland cement having 58-62 % of alite C3S; (b) microsilica; (c) a fine filler; (d) a S 3 **superplasticizer**; a powd. composite additive having the sp. surface area of (4-4.5) .times. 103 cm2/g; and (e) a mixt. contg. a clinker cement with a C3A content of 8-12 %, ground quartz sand, and dry C 3 powder according to a ratio of 5:4:1, resp. The **shotcrete** compns. further includes ground quartz sand having a sp. surface area of (3.5-4) .times. 103 cm2/g and water. The resulting mortars may be used in the manuf. of reinforced-concrete structures as well as in guniting and cementing operations. The mortars are water-proofing and exhibit high mech. strength, d., corrosion- and freeze-resistance, and in the context of guniting and cementing operations, has improved sealing and water-insulation properties. According to their use, the **shotcrete** compns. contain as a filler quartz sand having a fraction of 1.25-2.5 mm and/or quartz sand having a fraction of .ltoreq.0.14 mm, or a mixt. of sand and gravel having particle size of 2-5 mm.

ST **shotcrete** mortar cement concrete guniting waterproofing

- Portland cement
- microsilica
- fine filler
- sand
- superplasticizer

Claims 1, 2, 4, 9-11